

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 10.01.2006

Applicant's or agent's file reference
R05219PCT

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/JP2005/022238

International filing date (day/month/year)
28.11.2005

Priority date (day/month/year)
29.11.2004

International Patent Classification (IPC) or both national classification and IPC

Int.Cl. **B41J2/52** (2006.01), **B41J19/18** (2006.01), **H04N1/405** (2006.01), **B41J2/01** (2006.01), **G06F3/12** (2006.01)

Applicant
RICOH COMPANY, LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Date of completion of this opinion		19.12.2005	
Name and mailing address of the ISA/JP		Authorized officer	2P 3610
Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan		YASUSHI SHIMIZU Telephone No. +81-3-3581-1101 Ext. 3261	

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/022238

Box No. I

Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing

 - b. format of material
 - ☐ on paper
 - ☐ in electronic form

 - c. time of filing/furnishing
 - ☐ contained in the international application as filed
 - ☐ filed together with the international application in electronic form
 - ☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
 INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/022238

Box No. V Reasoned statement under Rule 43bis 1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-13	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-13	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims		NO

2. Citations and explanations:

The following document has been considered for the purpose of this report:

D1 = JP 2004-166163 A
 D2 = JP 2004-9333 A
 D3 = JP 2004-122496 A

The subject matters of claims 1-4, 8-11 do not appear to involve an inventive step in view of the document 1 cited in the ISR and the document 2 cited in the same.

The subject matters of claims 5-7, 12-13 do not appear to involve an inventive step in view of the document 1, the document 2 and the document 3 cited in the ISR.

The person skilled in the art would easily conceive the idea of applying the two-way recording method by an ink-jet recording that records the dots with a priority in the forward path of the main scan employed in D2 to the image forming apparatus which carries out a halftone process using a dither matrix by reproducing the gradation level by an inclined line-group keytone disclosed in D1 to arrive at the constitution feature of the invention as in claim 1. The skilled person would regard it as a design procedure to include the constitution feature of claims 2-4 dependent on claim 1.

An interlace recording or a multipath recording is common knowledge (see D3: JP 2004-122496 A). Therefore, the subject matter of claim 5 does not involve an inventive step over D1, D2 and D3 above-mentioned.

Claims 6-13 as such also do not meet the requirements with respect to inventive step. It is a mere design variation to carry out the image forming process above-mentioned by a printer driver, an image processing apparatus provided with the printer driver, an image forming apparatus or an image forming system.